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The Hub @NPRSS Distributes Content

Oklahoma's KOSU is first to sign up for service

▶ **DISTRIBUTION**

BY EMILY REIGART

In June, NPR Satellite Services launched a content distribution service that allows networks to send programming to stations without the need or expense of operating a local head-end. KOSU, a member-supported public radio network serving Oklahoma, signed on as the first customer for The Hub @NPRSS.

Broadcasters send their audio to the Network Operations Center located at National Public Radio's headquarters in Washington. The Hub @NPRSS clients are issued a website that they manage; with it, they can determine where and when their content plays, either through satellite uplinks or terrestrial IP streaming.

CONTENT DELIVERY

Director of NPRSS Darlene Holmes said that The Hub @NPRSS provides an "efficient way to deliver content without the upfront uplinking costs to build and maintain at their facility. Particularly for stations, it provides new revenue opportunities via spot insertions and localized IDs, plus it cuts costs."

"This is a system that is directly designed with group operators and operational budgets in mind," says NPRSS Operations Architect Matt Walther, who handles day-to-day engineering and operations of the satellite services.

"If an operator has a show that they would like to air on some, but not all, of their stations, they can feed that show to us through either a dedicated secondary stream or as a file delivery. That show can then be scheduled on a receiver-by-receiver basis. If they choose to use file delivery, the file can be scheduled and played directly from the receiver itself or if needed, saved to their own playout system," said Walther.

"Taking this to the next level, if that operator wants to resell their own program-

ming, they can now do that. Suppose this operator runs a talk format with a popular garden or sports talk show. The Hub allows them control over their own content."

Holmes adds, "With stations losing engineers and funding being cut, The Hub is a great alternative to keep stations thriving and growing revenues."

The Hub @NPRSS was created by NPR Satellite Services in partnership with San Diego, Calif.-based international telecommunications equipment maker XDS Pico Digital.

"About a year ago, we started looking at systems to be able to help clients who have older head-ends that are reaching the end of life. This system had to be proven, reliable and flexible enough that we could scale to any potential client who wanted to come onboard," says Walther. "During this process, we reviewed IP codecs and satellite head-ends from several vendors and settled on the GatesAir IP codecs and Pico Digital's X-Digital XDS headend.

"Once we got the equipment, we spent quite a bit of time verifying, torture-testing really, every component and aspect," Walther says. "We have redundant modulators, XDS chassis and servers — even IP networks into our building. We also kept a focus on what the customer experience would be like regarding how clients manage their own network programs and receivers.

This led to some system design changes for better workflows. Both GatesAir and Pico have been great to work with and were quick to respond in helping us achieve these goals."

Holmes says the origin of the service's name came because it is "the place where the heartbeat of radio flows from and comes together."

"One important item to remember is that content management goes beyond station scheduling. For example, we are setting up active back-up systems that can feed content from a secondary location when something happens to the primary," says Walther. "KOSU is an example of this. They have two sites set up and are actively connected to the Hub. If there is a problem with one site, they can disconnect those streams and have their secondary site streaming content within seconds."

Holmes concludes: "Stations need to think about the longevity of their equipment, resources and ongoing support in the future."

INSIDE THE HUB @NPRSS

Here is a list of the equipment powering The Hub @NPRSS, shown above.

Rack 5W 07
(Top to Bottom) — Clocks (red/green, not currently hooked up); Fostex monitor feed off of the Axia Audio XY router node (directly below) to monitor all Hub feeds; KVM monitor; Axia button selector; VU monitoring; Engineering utility server; Hub Application Primary; Hub Streaming Primary; Hub Web Primary; Hub Database Primary; Hub Application Secondary; Hub Streaming Secondary; Hub Web Secondary; Hub Database Secondary

Rack 5W 08
Quintech RF splitter to feed Ku and C Bands to receivers; Axia Analog node (outputs from receivers); Axia GPIO node (outputs from receivers); XDS Pro-4Q receiver for Ku Band; Axia Analog node (outputs from receivers); Axia GPIO node (outputs from receivers); XDS Pro-1Q receiver for C Band; Axia Analog node (outputs from receivers); Axia GPIO node (outputs from receivers); Axia Analog node (outputs from receivers); Axia GPIO node (outputs from receivers)

Rack 5W 09
Axia Analog node (outputs from IP codecs); Axia GPIO node (outputs from IP codecs); Axia Analog node (outputs from IP codecs); Axia GPIO node (outputs from IP codecs); GatesAir Intraplex IP Link 100 (5x = 4 active with 1 spare)

Rack 5W 10
Quintech active splitter; Axia Analog node; Axia GPIO node; Axia Analog node; Axia GPIO node; NewTec Modulation Primary (Ku Band); NewTec Modulation Switch; NewTec Modulation Secondary; NewTec Modulation Primary (C Band); NewTec Modulation Switch; NewTec Modulation Secondary; XDS Pro-1Q receiver for Ku Band; XDS Pro-1Q receiver for C Band; XDS X-Digital System Chassis Primary; XDS X-Digital System Chassis Secondary